

PCT10.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/018,706

DATE: 01/14/2002

TIME: 07:30:53

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\01142002\J018706.raw

Does Not Comply
Corrected Diskette Needed

```

4 <110> APPLICANT: Thonnard, Joelle
6 <120> TITLE OF INVENTION: Cloning of BASB110 Antigen From
7   Moraxella (Branhamella) Catarrhalis
10 <130> FILE REFERENCE: BM45394
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/018,706
C--> 12 <141> CURRENT FILING DATE: 2001-12-13
12 <150> PRIOR APPLICATION NUMBER: 9915031.0
13 <151> PRIOR FILING DATE: 1999-06-25
15 <150> PRIOR APPLICATION NUMBER: PCT/EP00/05854
16 <151> PRIOR FILING DATE: 2000-06-23
18 <160> NUMBER OF SEQ ID NOS: 6
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 969
24 <212> TYPE: DNA
25 <213> ORGANISM: Moraxella catarrhalis
27 <400> SEQUENCE: 1
28 atgactgtga cgatagcaat caattcacaa aatcaaaaac ccatcaagcg attgggcttg      60
29 atttttgggtg tgatcaccac ttgcattttg gcaggatgtg ccagtaagcc aacctataat      120
30 agtacctcag gttcgggcag tcatcgtact tcaggttcag gtggtttggc aataggttca      180
31 caggttatca cggacagtca gggcgtacca aatcgctatc aggtgaagca gggcgatact      240
32 gtcagtaaga ttgctcagcg ttatggatta aattggcgtg agattggaca cattaataat      300
33 ctaaatagca gttatacgat ttatacaggt caatggctga ctttatggtc aggtgatctc      360
34 aaggtgcgtg agcgtagtat cagctctggt gtgaatacag ctcacacacc ttgcctgtg      420
35 gcggttcagt caagcagacc accagtacag cagcatcctg ccgtacaaaa acccagcca      480
36 cctgttggtt tggtaaaaaa acccacaccg actccgcctg tggttcagca gccagacca      540
37 gttgccccac cagtgcacaga agcaccattt gccacgggta gtcaggggt gatgcaattt      600
38 cgctatcctg ttggtgcgac caatccagtg gttcgacgct ttggtacggc gacagtggcc      660
39 ggctcaactg ttaccagtaa tggcatgtgg ttttctggac gagatggcga tttaattaac      720
40 gccagtaatg caggcacagt cattcaagct gatcacaata tggacggggc gagtattgtg      780
41 attcagcata ccaatggatt tgtttcaagc tatatccata ttaaggacgc tcaagttaaa      840
42 acaggcgata cgggtgcgtac cggtcagcgt attgcaagca tgaaaaatca gccaacgggt      900
43 gcggcactat ttgaatttag aatttctaga aatggcgtgt atgttgatcc attgacagta      960
44 cttaaatag
46 <210> SEQ ID NO: 2
47 <211> LENGTH: 322
48 <212> TYPE: PRT
49 <213> ORGANISM: Moraxella catarrhalis
51 <400> SEQUENCE: 2
52 Met Thr Val Thr Ile Ala Ile Asn Ser Gln Asn Gln Lys Pro Ile Lys
53 1 5 10 15
54 Arg Leu Gly Leu Ile Phe Gly Val Ile Thr Thr Cys Ile Leu Ala Gly
55 20 25 30
56 Cys Ala Ser Lys Pro Thr Tyr Asn Ser Thr Ser Gly Ser Gly Ser His
57 35 40 45
58 Arg Thr Ser Gly Ser Gly Gly Leu Ala Ile Gly Ser Gln Val Ile Thr
59 50 55 60

```

RAW SEQUENCE LISTING

DATE: 01/14/2002

PATENT-APPLICATION: US/10/018,706

TIME: 07:30:53

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\01142002\J018706.raw

```

60 Asp Ser Gln Gly Val Pro Asn Arg Tyr Gln Val Lys Gln Gly Asp Thr
61 65 70 75 80
62 Val Ser Lys Ile Ala Gln Arg Tyr Gly Leu Asn Trp Arg Glu Ile Gly
63 85 90 95
64 His Ile Asn Asn Leu Asn Ser Ser Tyr Thr Ile Tyr Thr Gly Gln Trp
65 100 105 110
66 Leu Thr Leu Trp Ser Gly Asp Leu Lys Val Arg Glu Arg Ser Ile Ser
67 115 120 125
68 Ser Gly Val Asn Thr Ala His Thr Pro Ser Pro Val Ala Val Gln Ser
69 130 135 140
70 Ser Arg Pro Pro Val Gln Gln His Pro Ala Val Gln Lys Pro Thr Pro
71 145 150 155 160
72 Pro Val Val Val Val Lys Lys Pro Thr Pro Thr Pro Pro Val Val Gln
73 165 170 175
74 Gln Pro Ala Pro Val Ala Pro Pro Val Thr Glu Ala Pro Phe Ala Thr
75 180 185 190
76 Gly Ser Ser Gly Val Met Gln Phe Arg Tyr Pro Val Gly Ala Thr Asn
77 195 200 205
78 Pro Val Val Arg Arg Phe Gly Thr Ala Thr Val Ala Gly Ser Thr Val
79 210 215 220
80 Thr Ser Asn Gly Met Trp Phe Ser Gly Arg Asp Gly Asp Leu Ile Asn
81 225 230 235 240
82 Ala Ser Asn Ala Gly Thr Val Ile Gln Ala Asp His Asn Met Asp Gly
83 245 250 255
84 Ala Ser Ile Val Ile Gln His Thr Asn Gly Phe Val Ser Ser Tyr Ile
85 260 265 270
86 His Ile Lys Asp Ala Gln Val Lys Thr Gly Asp Thr Val Arg Thr Gly
87 275 280 285
88 Gln Arg Ile Ala Ser Met Lys Asn Gln Pro Ser Gly Ala Ala Leu Phe
89 290 295 300
90 Glu Phe Arg Ile Ser Arg Asn Gly Val Tyr Val Asp Pro Leu Thr Val
91 305 310 315 320

```

92 Leu Lys

95 <210> SEQ ID NO: 3

96 <211> LENGTH: 966

97 <212> TYPE: DNA

98 <213> ORGANISM: Moraxella catarrhalis

100 <400> SEQUENCE: 3

```

101 atgactgtga cgatagcaat caattcacaa aatcaaaaac ccatcaagcg attgggcttg 60
102 attttttggtg tgatcaccac ttgcattttg gcaggatgtg ccagtaagcc aacctataat 120
103 agtacctcag gttcgggcag tcatcgctact tcagggttcag gtggtttggc aataggttca 180
104 caggttatca cggacagtca gggcgtacca aatcgctatc aggtgaagca gggcgatact 240
105 gtcagtaaga ttgctcagcg ttatggatta aattggcgtg agattggaca cattaataat 300
106 ctaaatagcg gttatacgat ttatacaggt caatggctga ctttatggtc aggtgatctc 360
107 aaggtgcgtg agcgtagtat cagctctggt gtgaatacag ctacacacc ttcgcctgtg 420
108 gcggttcagt caagcagacc accagtacag cagcatcctg ccgtacaaaa acccagccca 480
109 cctgttggtt tggtaaaaaa acccaccacg actccgcctg tggttcagca gccagcacca 540
110 gttgccccac cagtgcagca agcaccattt gccacgggta gctcaggggt gatgcaattt 600
111 cgctatcctg ttggtgcgac caatccagtg gttcgacgct ttggtacggc gacagtggcc 660

```

RAW SEQUENCE LISTING

DATE: 01/14/2002

PATENT APPLICATION: US/10/018,706

TIME: 07:30:53

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\01142002\J018706.raw

```

112 ggctcaactg ttaccagtaa tggcatgtgg ttttctggac gagatggcga ttttaattaac 720
113 gccagtaatg caggcacagt cattcaagct gatcacaata tggacggggc gagtattgtg 780
114 attcagcata ccaatggatt tgtttcaagc tatatccata ttaaggacgc tcaagttaaa 840
115 acaggcgata cggcgctac cggtcagcgt attgcaagca tgaaaaatca gccaaagcgt 900
116 gcggcactat ttgaatttag aatttctaga aatggcgtgt atgttgatcc attgacagta 960
117 cttaaa 966
119 <210> SEQ ID NO: 4
120 <211> LENGTH: 322
121 <212> TYPE: PRT
122 <213> ORGANISM: Moraxella catarrhalis
124 <400> SEQUENCE: 4
125 Met Thr Val Thr Ile Ala Ile Asn Ser Gln Asn Gln Lys Pro Ile Lys
126 1 5 10 15
127 Arg Leu Gly Leu Ile Phe Gly Val Ile Thr Thr Cys Ile Leu Ala Gly
128 20 25 30
129 Cys Ala Ser Lys Pro Thr Tyr Asn Ser Thr Ser Gly Ser Gly Ser His
130 35 40 45
131 Arg Thr Ser Gly Ser Gly Gly Leu Ala Ile Gly Ser Gln Val Ile Thr
132 50 55 60
133 Asp Ser Gln Gly Val Pro Asn Arg Tyr Gln Val Lys Gln Gly Asp Thr
134 65 70 75 80
135 Val Ser Lys Ile Ala Gln Arg Tyr Gly Leu Asn Trp Arg Glu Ile Gly
136 85 90 95
137 His Ile Asn Asn Leu Asn Ser Gly Tyr Thr Ile Tyr Thr Gly Gln Trp
138 100 105 110
139 Leu Thr Leu Trp Ser Gly Asp Leu Lys Val Arg Glu Arg Ser Ile Ser
140 115 120 125
141 Ser Gly Val Asn Thr Ala His Thr Pro Ser Pro Val Ala Val Gln Ser
142 130 135 140
143 Ser Arg Pro Pro Val Gln His Pro Ala Val Gln Lys Pro Thr Pro
144 145 150 155 160
145 Pro Val Val Val Val Lys Lys Pro Thr Pro Thr Pro Pro Val Val Gln
146 165 170 175
147 Gln Pro Ala Pro Val Ala Pro Pro Val Thr Glu Ala Pro Phe Ala Thr
148 180 185 190
149 Gly Ser Ser Gly Val Met Gln Phe Arg Tyr Pro Val Gly Ala Thr Asn
150 195 200 205
151 Pro Val Val Arg Arg Phe Gly Thr Ala Thr Val Ala Gly Ser Thr Val
152 210 215 220
153 Thr Ser Asn Gly Met Trp Phe Ser Gly Arg Asp Gly Asp Leu Ile Asn
154 225 230 235 240
155 Ala Ser Asn Ala Gly Thr Val Ile Gln Ala Asp His Asn Met Asp Gly
156 245 250 255
157 Ala Ser Ile Val Ile Gln His Thr Asn Gly Phe Val Ser Ser Tyr Ile
158 260 265 270
159 His Ile Lys Asp Ala Gln Val Lys Thr Gly Asp Thr Val Arg Thr Gly
160 275 280 285
161 Gln Arg Ile Ala Ser Met Lys Asn Gln Pro Ser Gly Ala Ala Leu Phe
162 290 295 300

```

RAW SEQUENCE LISTING

DATE: 01/14/2002

PATENT APPLICATION: US/10/018,706

TIME: 07:30:53

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\01142002\J018706.raw

163 Glu Phe Arg Ile Ser Arg Asn Gly Val Tyr Val Asp Pro Leu Thr Val
164 305 310 315 320
165 Leu Lys
168 <210> SEQ ID NO: 5
169 <211> LENGTH: 35
170 <212> TYPE: DNA
C--> 171 <213> ORGANISM: Artificial Sequence
173 <220> FEATURE:
174 <223> OTHER INFORMATION: Primer
176 <400> SEQUENCE: 5
177 aggcagaggc atatgactgt gacgatagca atcaa 35
179 <210> SEQ ID NO: 6
180 <211> LENGTH: 42
181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial Sequence
184 <220> FEATURE:
185 <223> OTHER INFORMATION: Primer
187 <400> SEQUENCE: 6
188 aggcagaggc tcgagtttaa gtactgtcaa tggatcaaca ta 42

VERIFICATION SUMMARY

DATE: 01/14/2002

PATENT APPLICATION: US/10/018,706

TIME: 07:30:54

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\01142002\J018706.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:171 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5